



**6450-01-P**

**DEPARTMENT OF ENERGY**

[Docket No. PP-334]

**Record of Decision for Issuing a Presidential Permit to Energia Sierra Juarez U.S. Transmission, LLC, for the Energia Sierra Juarez U.S. Transmission Line Project**

**AGENCY:** U.S. Department of Energy (DOE), Office of Electricity Delivery and Energy Reliability.

**ACTION:** Record of Decision (ROD).

**SUMMARY:** DOE announces its decision to issue a Presidential permit to Energia Sierra Juarez U.S. Transmission, LLC (ESJ), to construct, operate, maintain, and connect a double-circuit, 230,000-volt (230-kV) electric transmission line across the U.S.-Mexico border in eastern San Diego County, California. The potential environmental impacts associated with the transmission line are analyzed in the *Environmental Impact Statement for the Energia Sierra Juarez U.S. Transmission Line Project* (DOE/EIS-0414). The transmission line would originate at San Diego Gas and Electric's planned East County Substation (ECO Substation), and extend southward approximately 0.65 miles to the U.S. border with Mexico, near Jacumba, California, where it would cross the border and connect with a transmission line to be built in Mexico.

**ADDRESSES:** The Final EIS is available on the DOE NEPA Website at <http://energy.gov/nepa/nepa-documents> and on the project website at <http://esjprojecteis.org/>, and the ROD will be available on both websites in the near future. Copies of the Final EIS and this ROD may be requested by contacting Brian Mills, Office of Electricity Delivery and Energy Reliability (OE-20), U.S. Department of Energy, 1000 Independence Avenue, SW, Washington, DC 20585, Phone (202) 586-8267, e-mail [Brian.Mills@hq.doe.gov](mailto:Brian.Mills@hq.doe.gov).

**FOR FURTHER INFORMATION CONTACT:** For further information on the Energia Sierra Juarez U.S. Transmission Line EIS, contact Brian Mills as indicated in the **ADDRESSES** section above. For general information on the DOE NEPA process, contact Ms. Carol M. Borgstrom, Director, Office of NEPA Policy and Compliance (GC-54), U.S. Department of Energy, 1000 Independence Avenue, SW, Washington, DC 20585; by e-mail at [askNEPA@hq.doe.gov](mailto:askNEPA@hq.doe.gov); or by facsimile at 202-586-7031.

## **SUPPLEMENTARY INFORMATION**

### **Background**

Executive Order (E.O.) 10485 (September 9, 1953), as amended by E.O. 12038 (February 7, 1978), requires that a Presidential permit be issued by DOE before electricity transmission facilities may be constructed, operated, maintained, or connected at the U.S. border. DOE may issue or amend a permit if it determines that the permit is in the public interest and after obtaining favorable recommendations from the U.S. Departments of State and Defense. In determining whether issuance of a permit for a proposed action is

in the public interest, DOE considers the potential environmental impacts of the proposed project, the project's impact on electricity reliability by ascertaining whether the proposed project would adversely affect the operation of the U.S. electric power supply system under normal and contingency conditions, and any other factors that DOE considers relevant to the public interest.

On December 18, 2007, ESJ, a subsidiary of Sempra U.S. Gas and Power, applied to DOE for a Presidential permit to construct, operate, maintain, and connect either a single-circuit, 500-kV electric transmission line or a double-circuit 230-kV electric transmission line across the U.S.-Mexico border. The electric transmission line would originate at San Diego Gas and Electric's planned ECO Substation in San Diego County where it would interconnect with the Imperial Valley-Miguel segment of the Southwest Powerlink (SWPL) 500-kV transmission line. The transmission line would extend approximately 0.65 miles southward, crossing the U.S.-Mexico border near Jacumba, California, then continue approximately 1 mile (1.6 km) to an interconnection point inside Mexico. The total length of the transmission line would be approximately 1.65 miles (2.65 km), 0.65 miles of which would be within the U.S. The proposed line would be constructed and owned by ESJ.

The ESJ transmission line project would connect to the planned 1,250 Megawatt (MW) ESJ Wind Project to be located in the general vicinity of La Rumorosa, Northern Baja California, Mexico. Delivery within California of the output of ESJ wind turbines in Mexico would be scheduled by the California Independent System Operator (CAISO).

## **Consultation**

Under Section 7 of the Endangered Species Act, DOE has completed consultation with the U.S. Fish and Wildlife Service regarding impacts on Federally-listed threatened or endangered species in the area of the proposed project. Consultation under section 106 of the National Historic Preservation Act was on-going at the time the Final EIS was issued. Since then, DOE has completed consultation with the California State Historic Preservation Officer (SHPO) regarding potential impacts on historic properties, as confirmed in a June 29, 2012, letter of concurrence by California SHPO.

## **NEPA Review**

DOE originally considered an environmental assessment (EA) (*Baja Wind U.S. Transmission Environmental Assessment*; DOE/EA-1608) to be the appropriate level of review under NEPA. DOE published a *Notice of Intent to Prepare an Environmental Assessment and to Conduct Public Scoping Meetings* in the *Federal Register* on August 4, 2008 (73 FR 45218). In that notice DOE stated “if at any time during preparation of the EA DOE determines that an environmental impact statement (EIS) is needed ... DOE will consider any comments on the scope of the EA received during [the EA scoping process] in preparing such an EIS.” After considering public comments on the EA, in January 2009, DOE decided to stop work on the EA and instead to prepare an EIS.

DOE published a Notice of Intent to prepare an EIS in the *Federal Register* on February 25, 2009 (74 FR 8518). The County of San Diego was a cooperating agency in the

preparation of the EIS. On September 17, 2010, the U.S. Environmental Protection Agency (EPA) published a Notice of Availability of the Draft EIS in the *Federal Register* (75 FR 57005), which began a 45-day public comment period that ended on November 1, 2010. During the comment period, DOE held three public hearings on the Draft EIS. DOE considered all late comments received on the Draft EIS, including late comments received through September 2011, in the preparation of the Final EIS.

DOE revised its action alternatives in the Final EIS to reflect a new location for the planned ECO Substation. As a result, four action alternatives were analyzed in the Final EIS. In May 2012, DOE published the Final EIS (DOE/EIS-0414), and a Notice of Availability of the Final EIS was published by the EPA in the *Federal Register* on June 8, 2012 (77 FR 34041).

### **Alternatives Considered**

In the draft EIS, DOE analyzed a No Action alternative and two action alternative routes. Under the No Action alternative (Alternative 1), DOE would not issue a Presidential permit for the proposed ESJ U.S. Transmission Line and the line would not be built. Under action alternative Alternative 2, the proposed transmission line would be constructed as a double-circuit 230-kV line, while action alternative Alternative 3 would be constructed as a single-circuit 500-kV line and would be located to the east of Alternative 2. The transmission lines analyzed in the action alternatives would be constructed with an overhead static ground wire running above the conductors with a

fiber optic core for communication between the ESJ Jacume Substation in Mexico and the planned ECO Substation in the U.S.

Following issuance of the Draft EIS, the proposed location for the ECO Substation was shifted approximately 700 feet (213 meters) east of the original proposed location in order to avoid impacts to cultural resources. Due to these changes, revised alternative routes were analyzed in the Final EIS. The revised double-circuit 230-kV transmission line route was identified as Alternative 4A (DOE's preferred alternative), and the revised single-circuit 500-kV transmission line route was identified as Alternative 4B. All action alternatives would be located wholly within private property in eastern San Diego County near the unincorporated community of Jacumba.

### **Analysis of Environmental Impacts**

The EIS analyzes potential impacts associated with the alternatives for each of the following resource areas: biological resources, visual resources, land use, recreation, cultural resources, noise, transportation and traffic, public health and safety, fire and fuels management, air quality and climate change, water resources, geology and soils, socioeconomics, environmental justice, and services and utilities.

Implementation of the No Action alternative would not result in changes to existing conditions in the various resource areas.

- i. Potential environmental impacts from the action alternatives identified in the EIS and discussed in this section are based upon ESJ's implementation of all Applicant Proposed Measures (APMs) and mitigation measures identified for each resource area in Section 2.11 of the Final EIS.

*Biological Resources:* All action alternatives would result in permanent disturbance to approximately 10 acres of natural vegetation and wildlife habitat. Minor temporary disturbances to wildlife and breeding birds during construction would be expected from increased noise and traffic during construction of the project. Under all action alternatives, some bird mortality could result from collisions with the transmission line even after mitigating measures are applied. No adverse effects to special status species are expected from any of the action alternatives. The information available indicates that the potential for impact on biological resources within the U.S. as a result of operation of the ESJ Wind Project in Mexico is not significant.

*Visual Resources:* All action alternatives would result in permanent potentially moderate-to-major, long-term adverse visual impacts due to land scarring. Views of construction equipment and activity would result in a temporary moderate adverse impact. The long-term presence of the transmission line would result in a moderate adverse impact.

Wind turbines planned for construction in Mexico as part of the ESJ Wind Project, including associated safety lighting, would be visible from several viewing points in the U.S., resulting in a potential long-term impact to individuals in the U.S.

*Cultural Resources:* Under all action alternatives, the construction activity would result in the potential for minor impacts to currently unknown cultural resources. ESJ has incorporated measures into its project design to eliminate potential impacts to eleven (11) known prehistoric archaeological sites in the Area of Potential Effect (APE) defined for the proposed transmission line.

Since ESJ plans to access water from the Jacumba Community Services District, a previously identified potential for impact to Site CA-SDI-4455, which is near the previously proposed water well access road, is no longer applicable.

*Noise:* Construction of the transmission line would result in temporary minor increases in ambient noise levels. These levels would be below the county noise ordinance at the nearest receptor site located approximately 1,600 feet west of the construction area.

Operation of the transmission line would introduce a sporadic low noise as a result of the corona effect. The 230-kV configurations would result in an approximate maximum of 8.8 dBA (decibels on an A-weighted scale) at the property line. This is below the County ordinance for nighttime property line sound level limit of 45 dBA. With regard to the 500-kV route alternatives, two of the four potential conductor configurations fall below the county nighttime property line sound level limit, at 35.4 dBA and 36.8 dBA. The



preferred alternative would not exceed the limits imposed by the County of San Diego's ordinance.

*Transportation and Traffic:* The action alternatives would result in a minor temporary increase in traffic on local roadways, a minor potential for adverse impacts to traffic safety at the project's ingress/egress, and a short-term minor potential for roadway damage from construction activities. ESJ is working with the County of San Diego to develop a traffic control plan, road improvements, and a site entrance in accordance with the County of San Diego's traffic safety design standards.

The area near the proposed transmission lines is frequented by low-flying aircraft operated by the U.S. Border Patrol and by the California Department of Forestry and Fire Protection. The transmission line would result in a minor potential for adverse impacts to air traffic safety.

*Public Health and Safety:* There would be little potential to expose the public to hazardous materials or contaminated soil as a result of construction of the transmission line. Construction materials would be managed to minimize potential storm water contact, and the small amounts of potential hazardous waste would be disposed in accordance with local, state, and Federal regulations.

There are no public trails, recreation areas, or other developments to cause members of the public to linger near the transmission lines. All action alternatives incorporate

grounding features in accordance with industry standards for electrical transmission structures to reduce the potential impact of induced currents and electrical field interference. The highest electromagnetic field (EMF) exposure at the nearest residence would be far below typical household levels.

*Fire and Fuels Management:* Construction of the transmission line would increase the potential risk associated with wildfire as a result of new ignition sources, introduction of invasive non-native plants, and the creation of a potential obstacle to firefighting. The San Diego Rural Fire Protection District has approved ESJ's Fire Protection Plan. Also, ESJ has worked with the District to agree upon methods to protect against fire.

Potential impacts to habitat and vegetation in the U.S. could result from a wildfire originating in Mexico and spreading across the U.S. - Mexico border.

*Air Quality and Climate Change:* Maximum emissions resulting from any of the action alternatives are estimated to be well below applicable thresholds. Temporary minor impacts from air emissions during construction and operation are expected due to minor short-term increases in criteria pollutants (organic gases, carbon monoxide, nitrogen oxides, sulfur oxides and fugitive dust).

Because it will transmit electricity generated from a renewable energy generating source (wind turbines), operation of the transmission line could facilitate a reduction in greenhouse gas emissions from other sources.

*Geology and Soils:* Under all action alternatives construction of the transmission line would result in a minor temporary increase in soil disturbance and erosion during construction. There is potential for long-term minor erosion impacts during operation of the proposed transmission line. Onsite soils have a high potential to corrode steel, but potential impacts of corrosion on operation of the transmission line would be minor.

During operations there would be a minor potential for structural damage or failure as a result of seismic ground-shaking. However, the transmission line and overhead structures are designed to exceed earthquake loads, resulting in minimal potential for damage. No impacts related to soil liquefaction or slope instability are anticipated.

### **The Environmentally Preferred Alternative**

DOE has determined that there are no discernible differences in the environmental impacts of the action alternatives. Because DOE's preferred 230-kV alternative would employ slightly smaller towers, thereby minimizing the overall footprint of the proposed project, Alternative 4A is identified as the environmentally preferred alternative.

### **Comments Received on the Final EIS**

Comments on the Final EIS were received from EPA Region IX on June 27, 2012, and from Stephen C. Volker attorney for Backcountry Against Dumps, the Protect Our Communities Foundation, East County Community Action Coalition, and Donna Tisdale

(Collectively, “Community Groups”) on July 10, 2012. Comments received on the Final EIS are available on the project Web site identified above.

The EPA Region IX comments on the Final EIS acknowledge DOE’s responses to EPA’s comments on the Draft EIS and raise no new issues. EPA states its appreciation for information added to the Final EIS that supports environmentally preferable outcomes.

The Community Groups’ comments reiterate the Community Groups November 2010 comments on the Draft EIS. The comments and DOE responses are identified as 401-1 through 401-17 in the Final EIS Comment and Response Document (Volume 3). The Community Group disagrees with the DOE responses. DOE affirms its previous responses to comments 401-1 through 401-17.

## **Decision**

DOE has decided to issue Presidential Permit PP-334 to authorize ESJ to construct, operate, maintain, and connect a Double-Circuit 230-kV transmission line across the U.S. border. This action, Alternative 4A, is identified as DOE’s preferred alternative in the EIS. The permit will include a condition requiring ESJ to implement mitigation measures identified in the EIS.

Before granting a Presidential permit, DOE must determine if a proposed international electric transmission line would have an adverse impact on the reliability of the U.S. electric power supply system. In reaching this determination, DOE considers the

operation of the electrical grid with a specified maximum amount of electric power transmitted over the proposed line.

DOE reviewed the generation interconnection studies conducted by CAISO for the first phase of the ESJ planned wind generation facility currently in the CAISO interconnection queue to connect to the U.S. grid. These studies are available on the project website.

CAISO completed the study for the first phase of 400 MW of wind generation and executed an interconnection agreement with ESJ U.S. Transmission (Standard Large Generator Interconnection Agreement (LGIA) – ESJ Wind (Queue No. 159A), CAISO, October 26, 2011). The studies for the second and third phases of the planned ESJ wind generation have not been completed.

## **Mitigation**

Avoidance and minimization of potential environmental impacts was a consideration in the identification and selection of the preferred alternative. The alignment of DOE's preferred alternative avoids some cultural resources potentially affected by Alternatives 2 and 3. DOE's Presidential permit will contain a condition that requires ESJ to implement project-specific mitigation measures and protective measures proposed by the Applicant (APMs) that are identified in the Final EIS. With the implementation of the preferred alternative and inclusion of the mitigation measures, DOE has employed all practicable means to avoid or minimize environmental harm from the design, construction and operation of the preferred alternative.

**Basis for Decision**

In arriving at its decision, DOE has considered the potential environmental impacts of the proposed project, the project's impact on electricity reliability by ascertaining whether the proposed project would adversely affect the operation of the U.S. electric power supply system under normal and contingency conditions, and any other factors that DOE may consider relevant to the public interest.

DOE has determined that the potential impacts from the Route for the Double-Circuit 230-kV Transmission Line are expected to be small, as discussed above.

For the reasons stated above, DOE will issue Presidential Permit PP-334 to authorize ESJ to construct, operate, maintain, and connect the Energia Sierra Juarez U.S. Double-Circuit 230-kV Transmission Line across the U.S. border. Presidential Permit PP-334 will limit the project to a maximum of 400 MW.

Issued in Washington, DC, on August 13, 2012

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Delivery and Energy Reliability

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